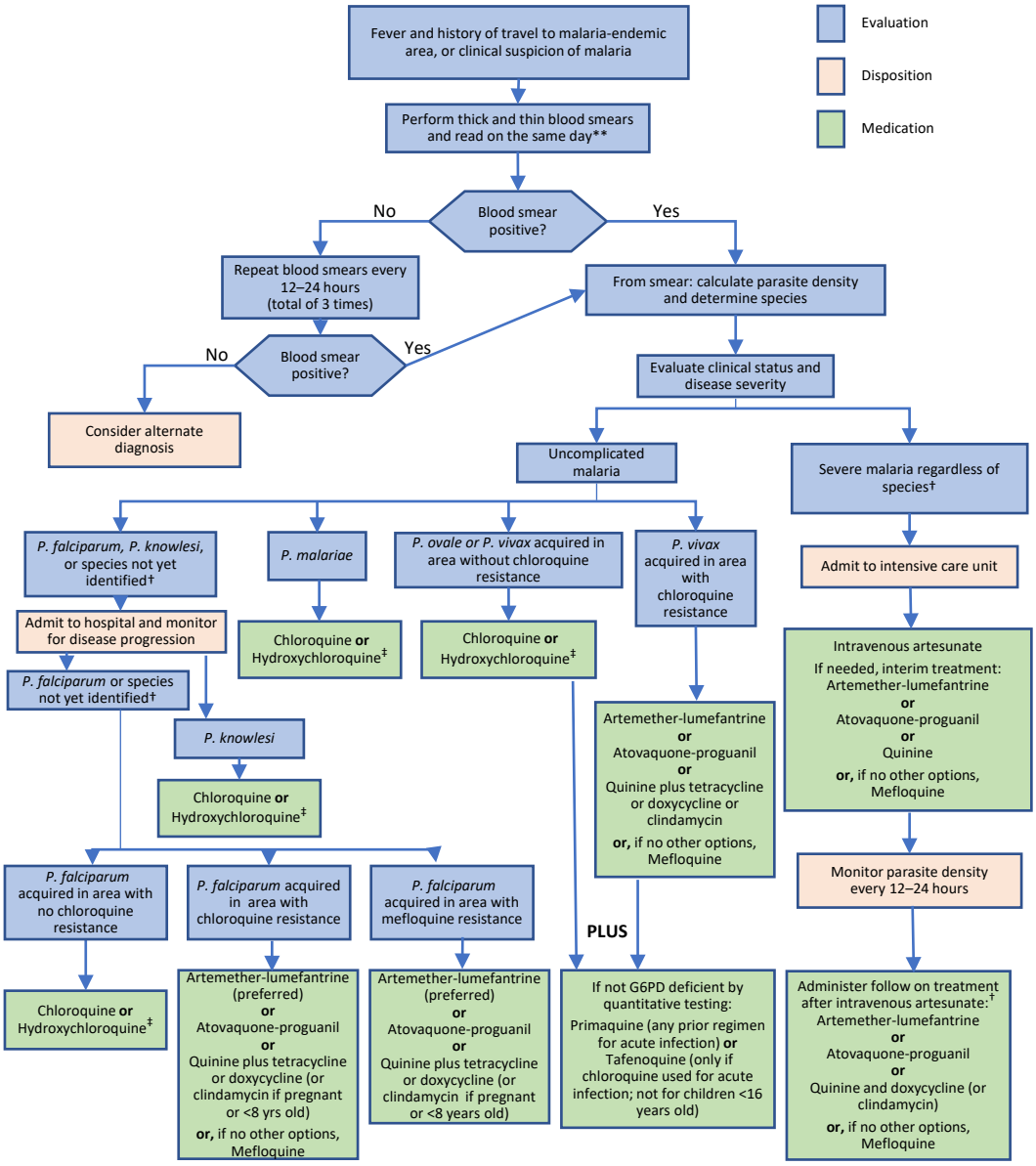
Algorithm for Diagnosis and Treatment of Malaria in the United States*

If after urgent infectious disease consultation, additional assistance is needed, clinicians can call the CDC Malaria Hotline: (770) 488-7788 or (855) 856-4713 (toll free), Mon–Fri, 9 am–5 pm EST; (770) 488-7100 after hours, weekends, and holidays


Evaluation
Disposition
Medication
Fever and history of travel to malaria-endemic area, or clinical suspicion of malaria
Perform thick and thin blood smears and read on the same day**
Blood smear positive?
No
Yes
Repeat blood smears every 12–24 hours (total of 3 times)
Blood smear positive?
No
Yes
Consider alternate diagnosis
From smear: calculate parasite density and determine species
Evaluate clinical status and disease severity
Uncomplicated malaria
Severe malaria regardless of species†
P. falciparum, P. knowlesi, or species not yet identified†
P. malariae
P. ovale or P. vivax acquired in area without chloroquine resistance
P. vivax acquired in area with chloroquine resistance
Admit to hospital and monitor for disease progression
Chloroquine or Hydroxychloroquine‡
Chloroquine or Hydroxychloroquine‡
Artemether-lumefantrine or Atovaquone-proguanil or Quinine plus tetracycline or doxycycline or clindamycin or, if no other options, Mefloquine
P. falciparum or species not yet identified†
P. knowlesi
Chloroquine or Hydroxychloroquine‡
P. falciparum acquired in area with no chloroquine resistance
P. falciparum acquired in area with chloroquine resistance
P. falciparum acquired in area with mefloquine resistance
Chloroquine or Hydroxychloroquine‡
Artemether-lumefantrine (preferred) or Atovaquone-proguanil or Quinine plus tetracycline or doxycycline (or clindamycin if pregnant or <8 yrs old) or, if no other options, Mefloquine
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PLUS
If not G6PD deficient by quantitative testing: Primaquine (any prior regimen for acute infection) or Tafenoquine (only if chloroquine used for acute infection; not for children <16 years old)
Admit to intensive care unit
Intravenous artesunate
If needed, interim treatment: Artemether-lumefantrine or Atovaquone-proguanil or Quinine or, if no other options, Mefloquine
Monitor parasite density every 12–24 hours
Administer follow on treatment after intravenous artesunate:† Artemether-lumefantrine or Atovaquone-proguanil or Quinine and doxycycline (or clindamycin) or, if no other options, Mefloquine

Footnotes:

* Treatment for special populations (children and pregnant women) can be found in the CDC Treatment Guidelines and Treatment Table.

** If rapid diagnostic test performed, smear should also be performed with results available as soon as possible.

† If species later identified as *P. vivax* or *P. ovale*, add primaquine if not G6PD deficient by quantitative testing. Tafenoquine can only be used if concurrently given with chloroquine or hydroxychloroquine.

‡ Drug options for chloroquine-resistant *P. falciparum* may be used.